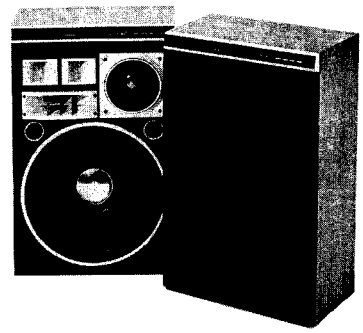
Service Manual

PIONEER®



The model shown in this photo is CS-903.

ORDER NO.
ART-691-0

SPEAKER SYSTEM

CS-903

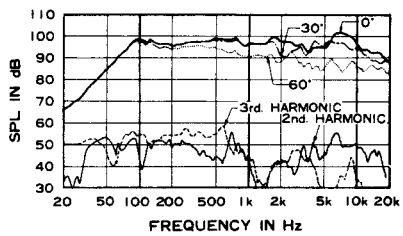
CS-803
CS-703
CS-603

SPECIFICATIONS

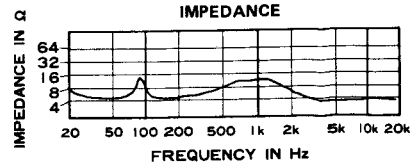
CS-903

Enclosure	Bass-reflex type, Book-shelf style
System	5 speakers, 4 way system
Speakers	
Woofer	16 inch cone type
Mid Range	6 1/3 inch cone type
Tweeter	8-9/32 x 3 inch horn type
Super Tweeter	horn-loaded Ribon type x 2
Accessory	Power Indicator
	LED – green x 9, red x 1 (over load)
	Tone Selector
	NORMAL - SOFT 1 - SOFT 2 - CRISP
Impedance	8 ohms
Frequency range	20 ~ 40kHz
Sensitivity	99dB/W (at 1-meter distance)
Maximum Input Power	300W
Nominal Input power	150W
Crossover frequency	1.5kHz, 4kHz, 9kHz
Weight	21kg
Dimensions	450(W) x 710(H) x 259(D) mm
	17-23/32(W) x 27-15/16(H) x 10-3/16(D) inch

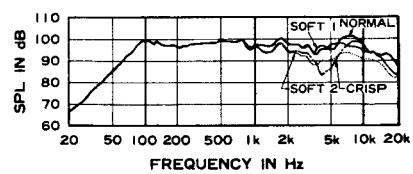
FREQUENCY RESPONSE & HARMONIC DISTORTION



IMPEDANCE



FREQUENCY RESPONSE & TONE SELECTOR



NOTE:
Specifications and design subject to possible modification without notice due to improvements.

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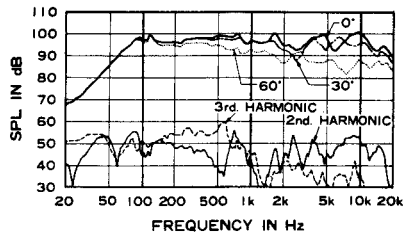
CS-903/803/703/603

CS-803

Enclosure . . . . . Bass-reflex type, Book-shelf style
System . . . . . 5 speakers, 4 way system
Speakers
Woofer . . . . . 16 inch cone type
Mid Range . . . . . 5 inch cone type
Tweeter . . . . . 8-9/32 x 3 inch horn type
Super Tweeter . . . . . horn-loaded Ribon type x 2
Accessory . . . . . Power Indicator
LED – green x 6, red x 1 (over load)
Tone Selector
NORMAL - SOFT 1 - SOFT 2 - CRISP
Impedance . . . . . 8 ohms
Frequency range . . . . . 20 ~ 40kHz
Sensitivity . . . . . 99dB/W (at 1-meter distance)
Maximum Input Power 250W
Nominal Input power 125W
Crossover frequency 2kHz, 4kHz, 9kHz
Weight 20kg
Dimensions . . . . . 450(W) x 710(H) x 259(D) mm
17-23/32(W) x 27-15/16(H) x 10-3/16(D) inch

FREQUENCY RESPONSE & HARMONIC DISTORTION



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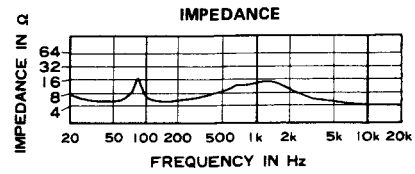
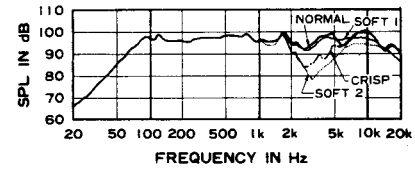


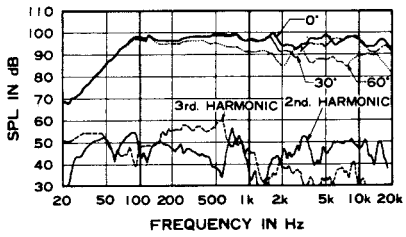
FREQUENCY RESPONSE & TONE SELECTOR



CS-703

Enclosure . . . . . Bass-reflex type, Book-shelf style
System . . . . . 4 speakers, 4 way system
Speakers
Woofer . . . . . 16 inch cone type
Mid Range . . . . . 4 inch cone type
Tweeter . . . . . 8-9/32 x 3 inch horn type
Super Tweeter . . . . . horn-loaded Ribon type
Accessory . . . . . Power Indicator
LED – green x 4, red x 1 (over load)
Tone Selector
NORMAL - SOFT 1 - SOFT 2 - CRISP
Impedance . . . . . 8 ohms
Frequency range . . . . . 20 ~ 40kHz
Sensitivity . . . . . 98dB/W (at 1-meter distance)
Maximum Input Power 200W
Nominal Input power 100W
Crossover frequency 2kHz, 4kHz, 9kHz
Weight 20kg
Dimensions . . . . . 450(W) x 710(H) x 259(D) mm
17-23/32(W) x 27-15/16(H) x 10-3/16(D) inch

FREQUENCY RESPONSE & HARMONIC DISTORTION



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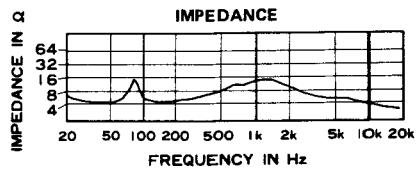
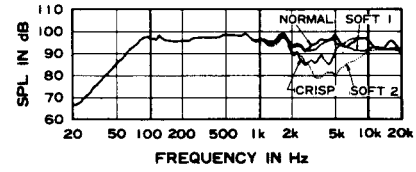


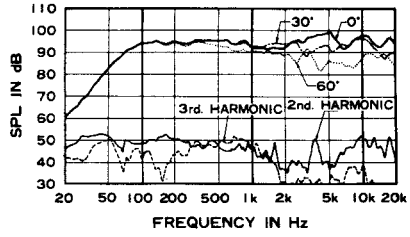
FREQUENCY RESPONSE & TONE SELECTOR



CS-603

Enclosure . . . . . Bass-reflex type, Book-shelf style
System . . . . . 4 speakers, 4 way system
Speakers
Woofer . . . . . 12 inch cone type
Mid Range . . . . . 4 inch cone type
Tweeter . . . . . 8-9/32 x 3 inch horn type
Super Tweeter . . . . . horn-loaded Ribon type
Accessory . . . . . Power Indicator
LED – green x 3, red x 1 (over load)
Tone Selector
NORMAL - SOFT 1 - SOFT 2 - CRISP
Impedance . . . . . 8 ohms
Frequency range . . . . . 25 ~ 40kHz
Sensitivity . . . . . 97dB/W (at 1-meter distance)
Maximum Input Power 150W
Nominal Input power 75W
Crossover frequency 2.5kHz, 4kHz, 9kHz
Weight 16kg
Dimensions . . . . . 410(W) x 646(H) x 278(D) mm
16-1/8(W) X 25-7/16(H) X 10-15/16(D) inch

FREQUENCY RESPONSE & HARMONIC DISTORTION



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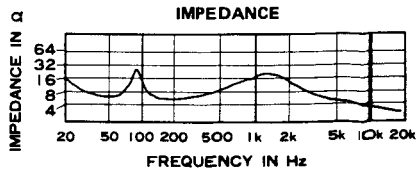
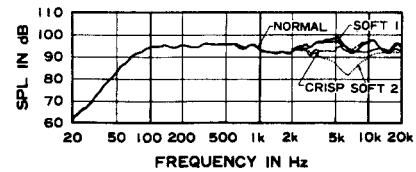
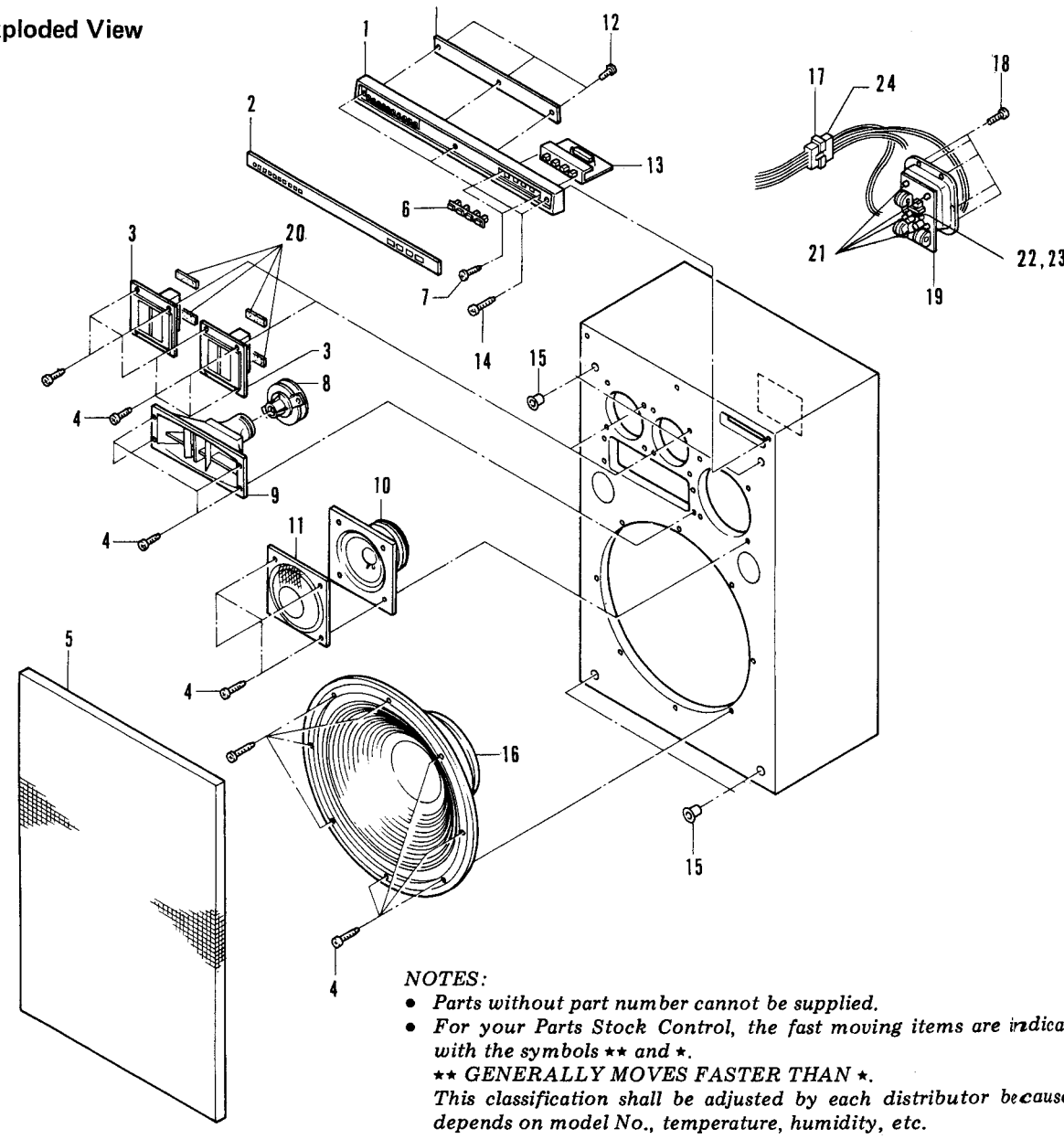


FREQUENCY RESPONSE & TONE SELECTOR



EXPLODED VIEW AND PARTS LIST

CS-903 Exploded View



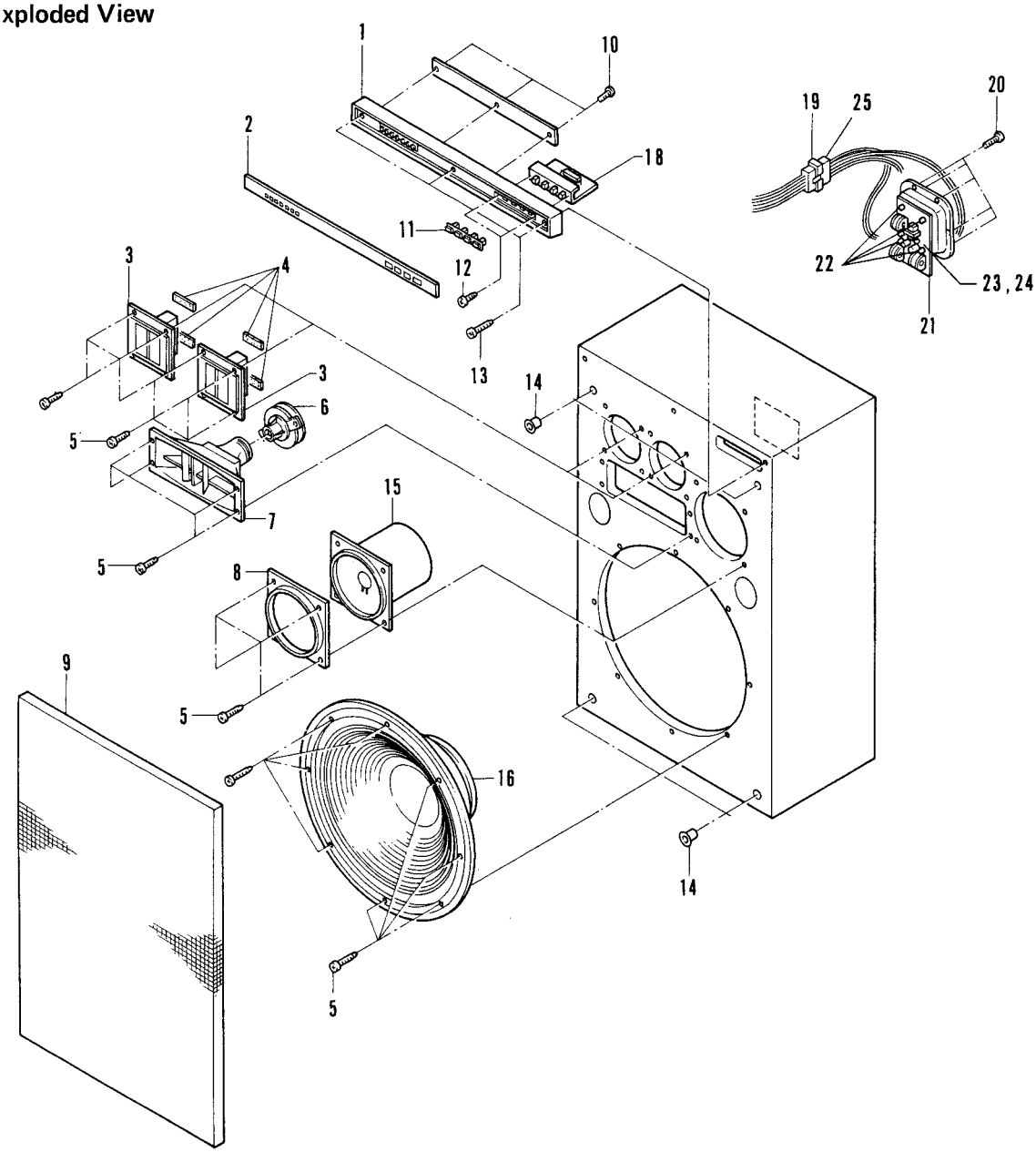
NOTES:

- *Parts without part number cannot be supplied.*
- *For your Parts Stock Control, the fast moving items are indicated with the symbols ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★.
  This classification shall be adjusted by each distributor because it depends on model No., temperature, humidity, etc.

Parts List

Mark	No.	Part No.	Description
	1.	SWX-081	Power indicator assembly
	2.	SAX-213	Panel
★★	3.	PT-R01A	Super tweeter
	4.	BYC40P250FZK	Screw
	5.	SMG-251	Grill assembly
	6.	SAA-056	Knob
	7.	PMZ30P050FMC	Screw
	8.	PD-009A-3	Driver
	9.	PH-015A	Horn
★★	10.	16-740A	Mid-range
	11.	SXB-346	Mid-flange
	12.	TTZ26P100FMC	Screw
	13.	SWL-015	Attenuator assembly
	14.	RWC38P380FMC	Screw
	15.	.....	.....
★★	16.	40-806A	Woofer
	17.	SDF-005	Connector
	18.	OWC31P160FZK	Screw
★	19.	SWN-295	Network assembly
	20.	SEC-401	Packing
	21.	TTZ30P080FMC	Screw
	22.	BMZ30P160FMC	Screw
	23.	WH30FMC	Washer
	24.	SDF-006	Connector

CS-803 Exploded View

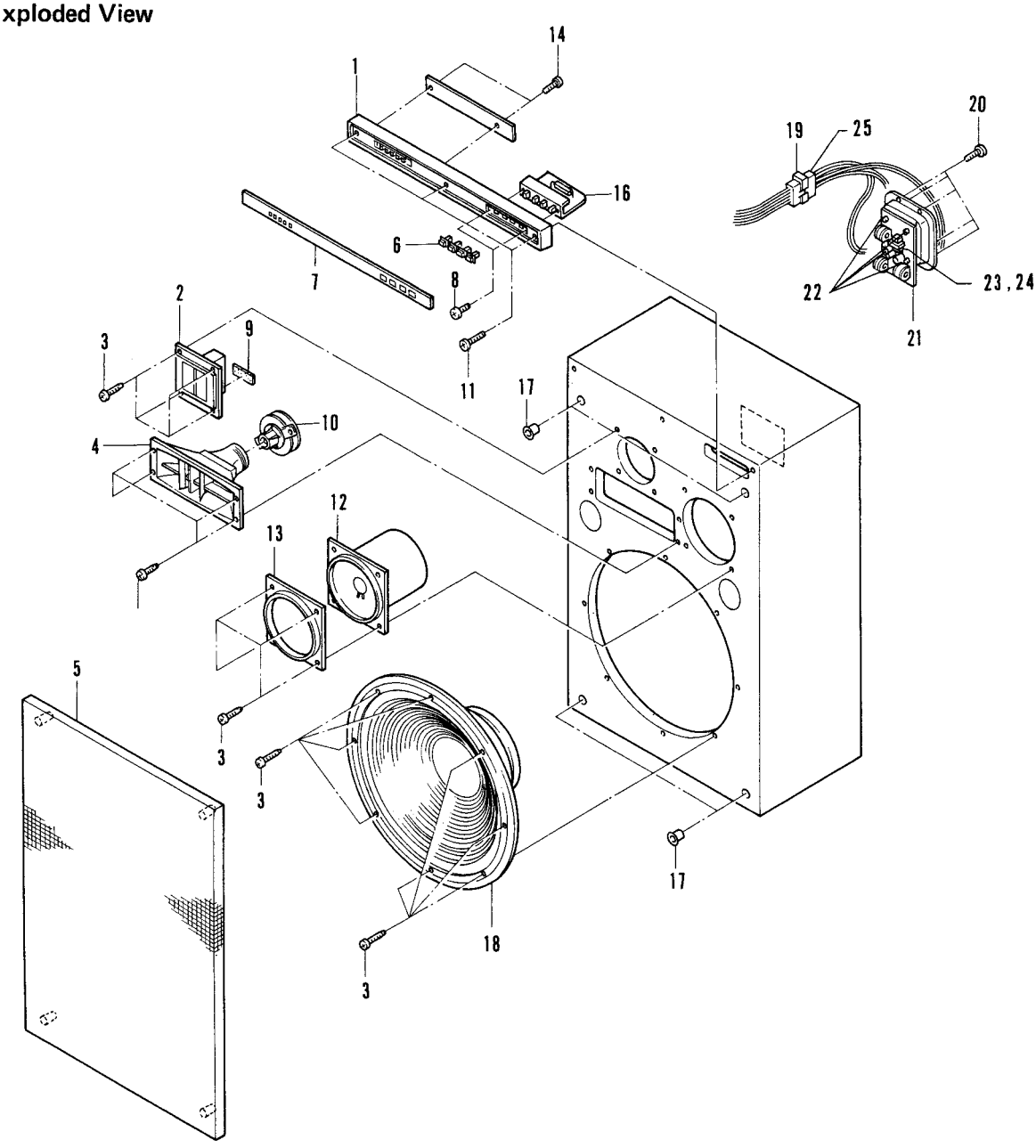


Parts List

Mark	No.	Part No.	Description
	1.	SWX-084	Power indicator assembly
	2.	SAX-214	Panel
★★	3.	PT-R01A	Super tweeter
	4.	SEC-401	Packing
	5.	BYC40P250FZK	Screw
	6.	PD-009A-3	Driver
	7.	PH-015A	Horn
	8.	SNK-612	Mid-flange
	9.	SMG-251	Grill assembly
	10.	TTZ26P100FMC	Screw

Mark	No.	Part No.	Description
	11.	SAA-056	Knob
	12.	PMZ30P050FMC	Screw
	13.	RWC38P38OFMC	Screw
	14.	.....	.....
★★	15.	12-736A	Mid-range
★★	16.	40-806A	Woofer
	17.	.....	.....
	18.	SWL-015	Attenuator assembly
	19.	SDF-005	Connector
	20.	OWC31P160FZK	Screw
★	21.	SWN-302	Network assembly
	22.	TTZ30P080FMC	Screw
	23.	BMZ30P160FMC	Screw
	24.	WH30FMC	Washer
	25.	SDF-006	Connector

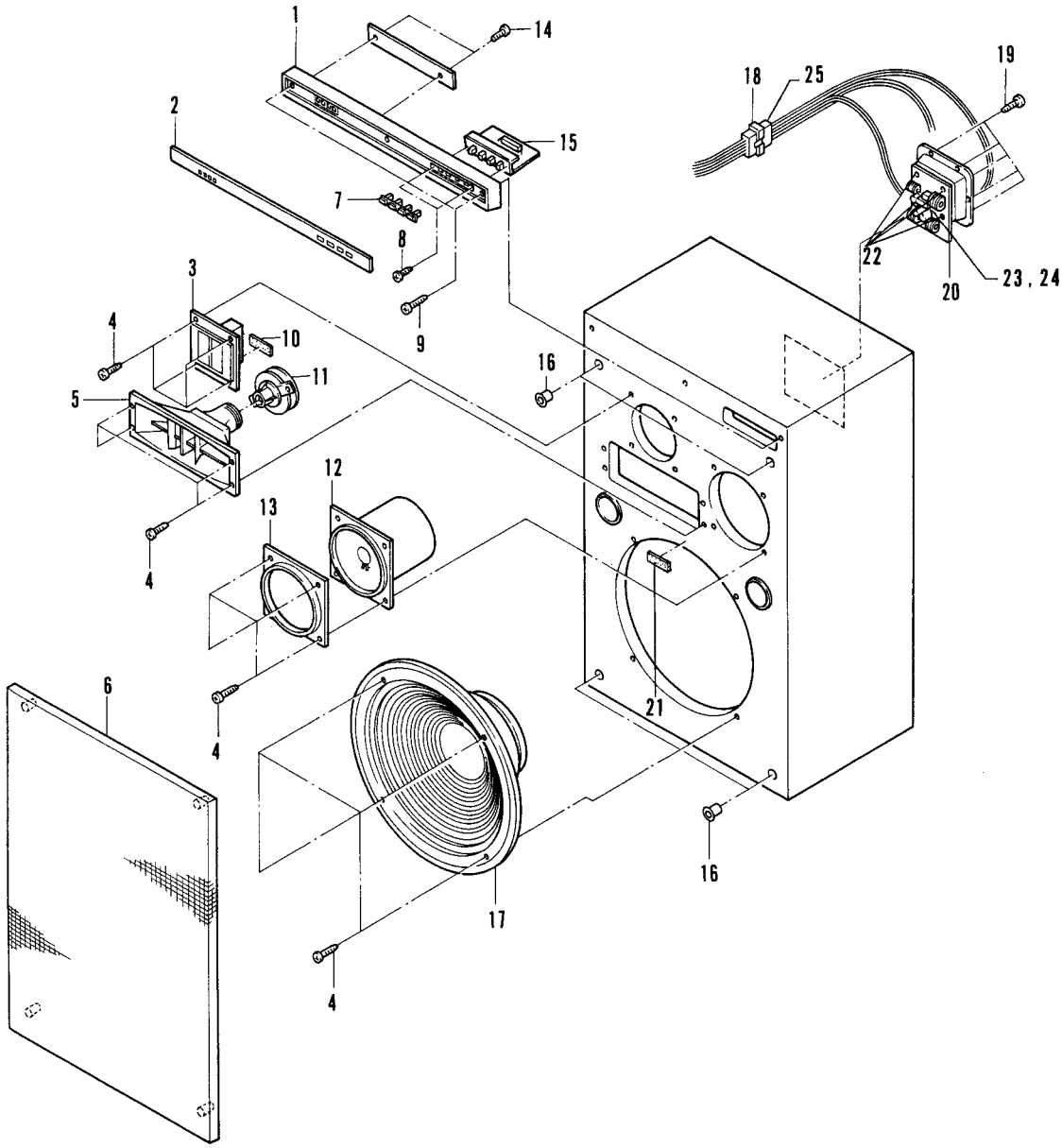
CS-703 Exploded View



Parts List

Mark	No.	Part No.	Description
	1.	SWX-083	Power indicator assembly
★★	2.	PT-R01A	Super tweeter
	3.	BYC40P250FZK	Screw
	4.	PH-015A	Horn
	5.	SMG-251	Grill assembly
	6.	SAA-056	Knob
	7.	SAX-215	Panel
	8.	PMZ30P50FMC	Screw
	9.	SEC-401	Packing
	10.	PD-009A-3	Driver
	11.	RWC38P380FMC	Screw
★★	12.	12-736A	Mid-range
★★	13.	SNK-612	Mid-flange
	14.	TTZ26P100FMC	Screw
	15.	.....	.....
	16.	SWL-015	Attenuator assembly
	17.	.....	.....
★★	18.	40-806A	Woofer
	19.	SDF-007	Connector
	20.	OWC31P160FZK	Screw
★	21.	SWN-301	Network assembly
	22.	TTZ30P080FMC	Screw
	23.	BMZ30P160FMC	Screw
	24.	WH30FMC	Washer
	25.	SDF-006	Connector

CS-603 Exploded View



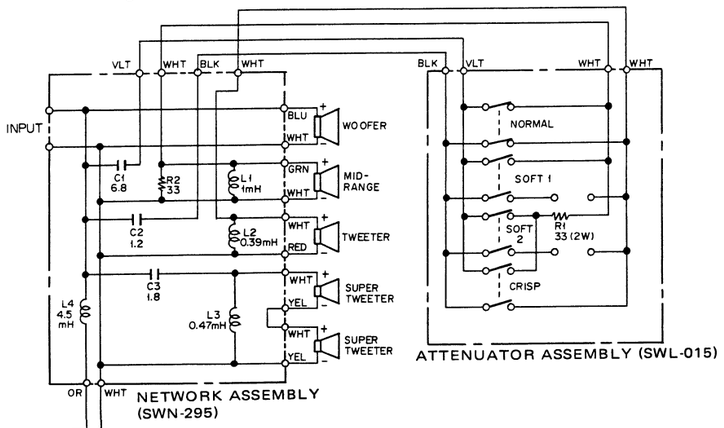
Parts List

Mark	No.	Part No.	Description
	1.	SWX-082	Power indicator assembly
	2.	SAX-216	Panel
★★	3.	PT-R01A	Super tweeter
	4.	BYC40P250FZK	Screw
	5.	PH-015A	Horn
	6.	SMG-252	Grill assembly
	7.	SAA-056	Knob
	8.	PMZ30P050FMC	Screw
	9.	RWC38P380FMC	Screw
	10.	SEC-401	Packing
	11.	PD-009A-3	Driver
★★	12.	12-736A	Mid-range
	13.	SNK-612	Mid-flange
	14.	TTZ26P100FMC	Screw
	15.	SWL-015	Attenuator assembly
	16.	.....	.....
★★	17.	30-762A	Woofer
	18.	SDF-007	Connector
	19.	OWC31P160FZK	Screw
★	20.	SWN-300	Network assembly
	21.	SEC-443	Packing
	22.	TTZ30P080FMC	Screw
	23.	BMZ30P160FMC	Screw
	24.	WH30FMC	Washer
	25.	SDF-006	Connector

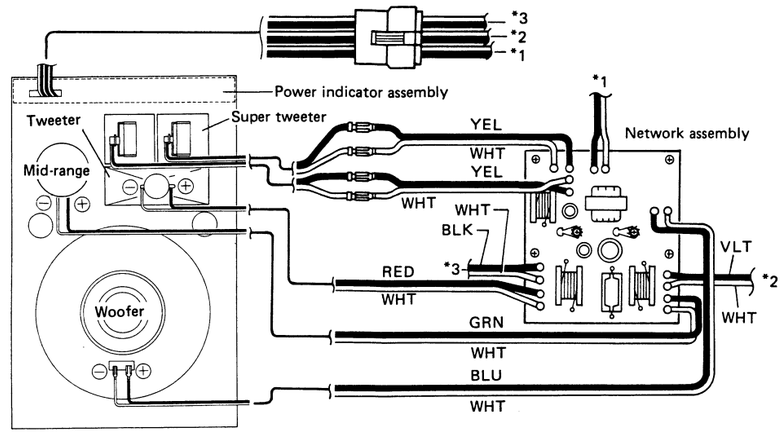
ELECTRICAL PARTS

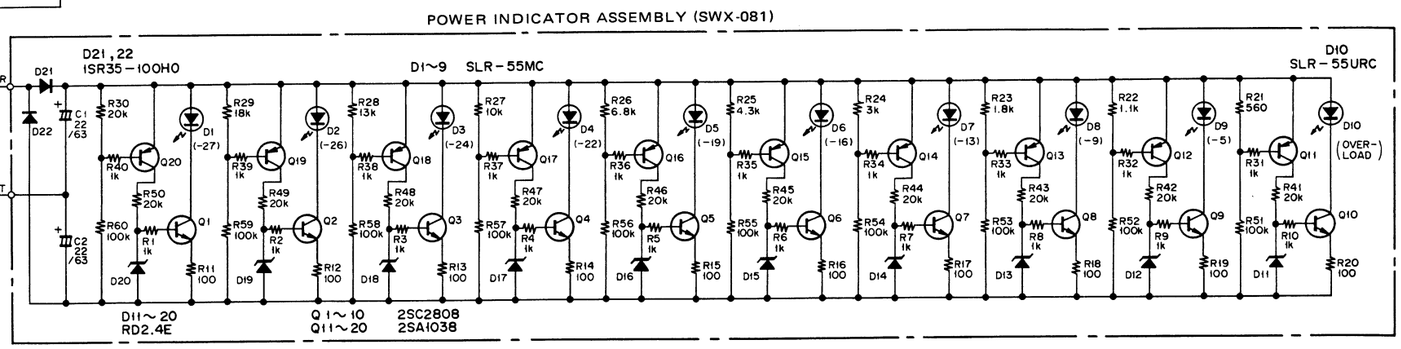
CS-903

■ Circuit Diagram

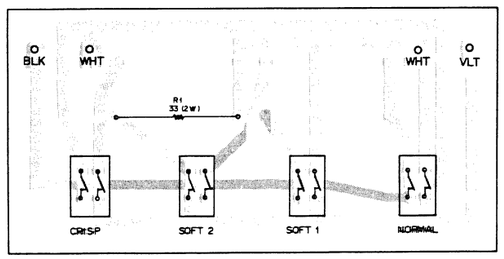


■ Wiring





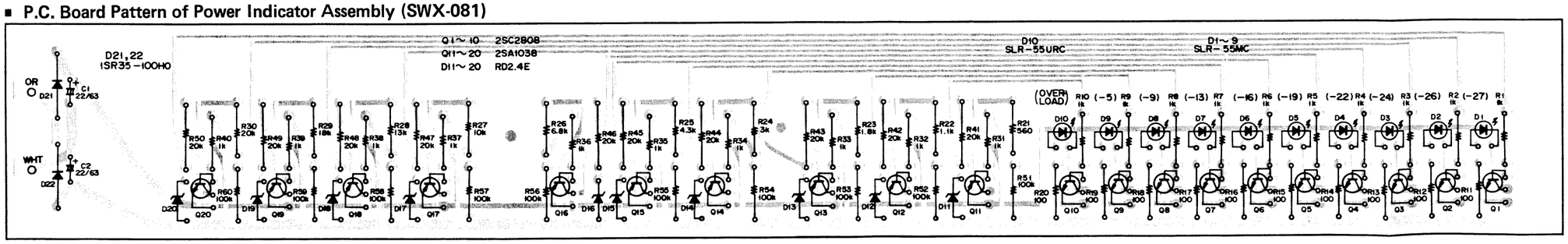
■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



ATTENUATOR ASSEMBLY (SWL-015)

Mark	Part No.	Symbol & Description	
	RTF2Q 330J 28	R1	Resistor
★★	SSG-002		Switch

■ P.C. Board Pattern of Power Indicator Assembly (SWX-081)



NOTES:

- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	*56 × 10¹*	*561*	*RD¼PS 5 6 1 J*
47kΩ	*47 × 10³*	*473*	*RD¼PS 4 7 3 J*
0.5Ω	*0R5*		*RN2H 0 R 5 K*
1Ω	*010*		*RSIP 0 1 0 K*

■ Parts List

NETWORK ASSEMBLY (SWN-295)

Mark	Part No.	Symbol & Description	
	CES04 6R8K 100	C1	Capacitor
	CES04 1R2K 63	C2	Capacitor
	CES04 1R8K 63	C3	Capacitor
	RT5B 330K	R2	Resistor
	SKE-008		Terminal
	SKE-007		Terminal
		L1	Choke coil (1 mH)
		L2	Choke coil (0.39 mH)
		L3	Choke coil (0.47 mH)
		L4	Choke coil (4.5 mH)

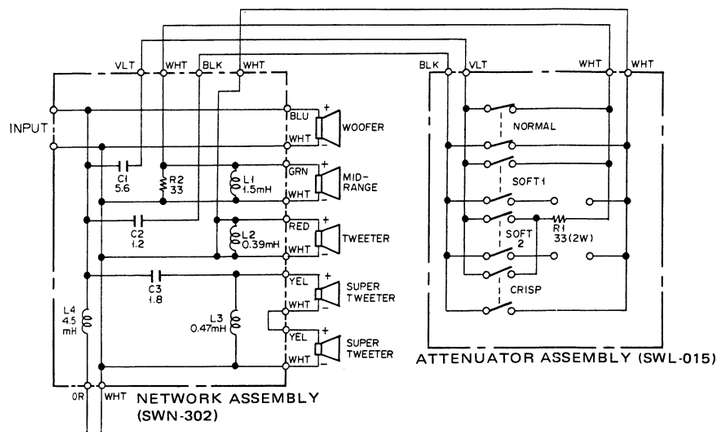
POWER INDICATOR (SWX-081)

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

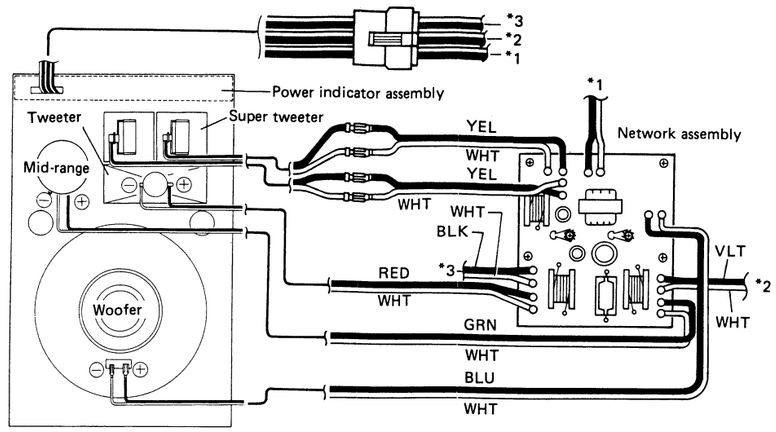
Mark	Part No.	Symbol & Description	
	CEA 220M 63	C1, C2	
	RD1/4PM□□□J	R1–R40, R51–R60	Resistor
	RD1/2PS 203J	R41–R50	Resistor
★★	2SC2808	Q1–Q10	Transistor
★★	2SA1038	Q11–Q20	
★	SLR-55MC	D1–D9	Diode
★	SLR-55URC	D10	Diode
★	RD2.4E	D11–D20	Diode
★	1SR35-100H0	D21, D22	Diode
	SDF-005		Connector

CS-803

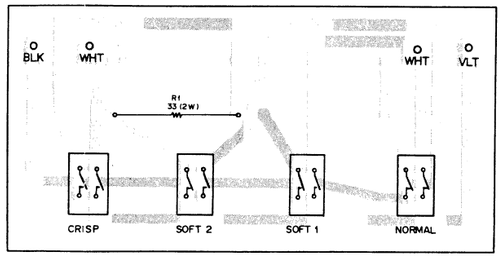
■ Circuit Diagram



■ Wiring



■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



ATTENUATOR ASSEMBLY (SWL-015)

Mark	Part No.	Symbol & Description	
	RTF2Q 330J 28	R1	Resistor
★★	SSG-002		Switch

■ Parts List

NETWORK ASSEMBLY (SWN-302)

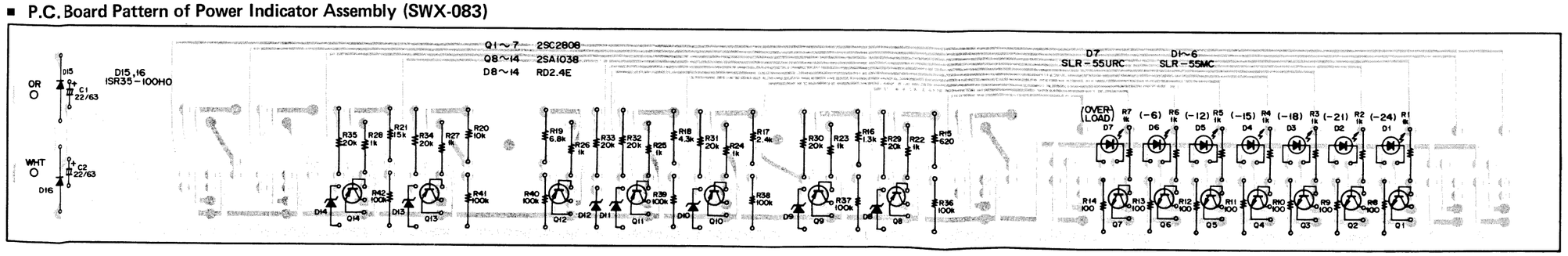
Mark	Part No.	Symbol & Description	
	CES04 5R6K 100	C1	Capacitor
	CES04 1R2K 63	C2	Capacitor
	CES04 1R8K 63	C3	Capacitor
	RT5B 330K	R2	Resistor
	SKE-008		Terminal
	SKE-007		Terminal
		L1	Choke coil (1.5 mH)
		L2	Choke coil (0.39 mH)
		L3	Choke coil (0.47 mH)
		L4	Choke coil (4.5 mH)

POWER INDICATOR ASSEMBLY (SWX-083)

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

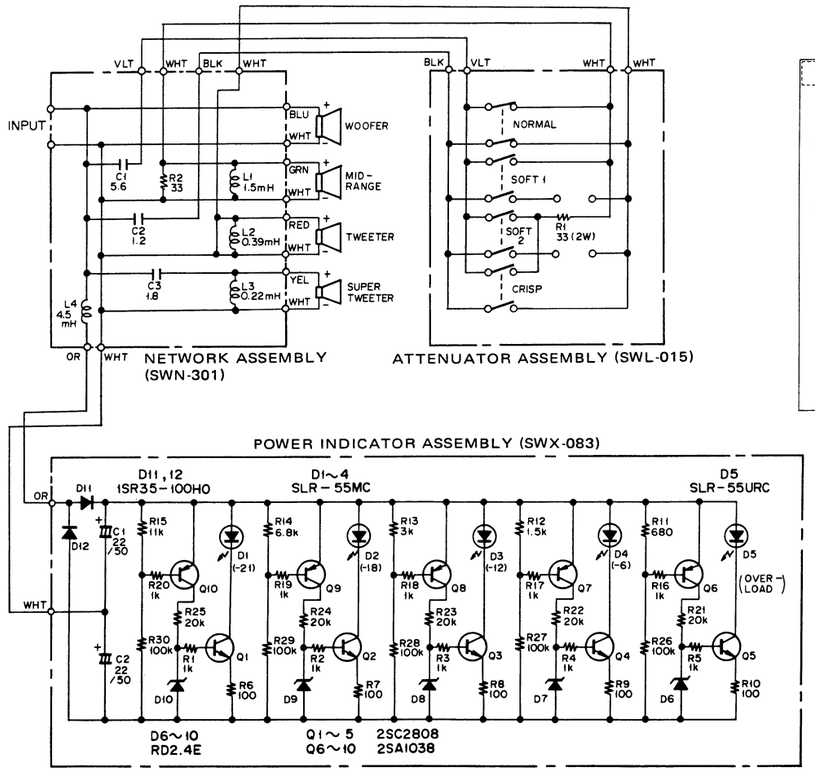
Mark	Part No.	Symbol & Description	
	CEA 220M 63	C1, C2	Capacitor
	RD1/4PM□□□J	R1–R28, R36–R42	Resistor
	RD1/2PS203	R29–R35	Resistor
★★	2SC2808	Q1–Q7	Transistor
★★	2SA1038	Q8–Q14	Transistor
★	SLR-55MC	D1–D6	Diode
★	SLR-55URC	D7	Diode
★	RD2.4E	D8–D14	Diode
★	1SR35-100H0	D15–D16	Diode

■ P.C. Board Pattern of Power Indicator Assembly (SWX-083)

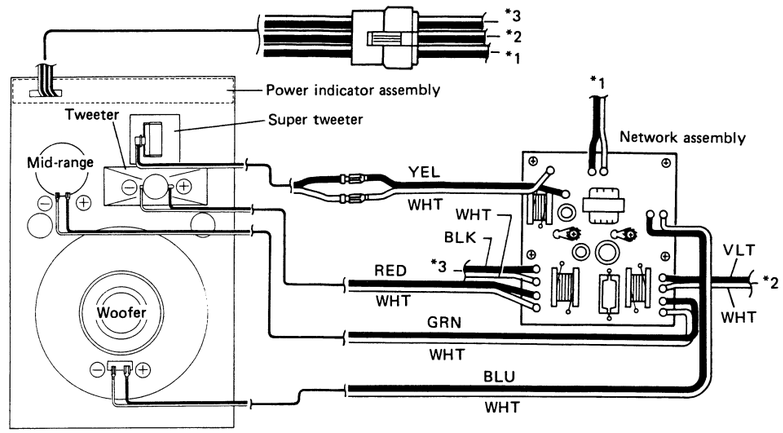


CS-703

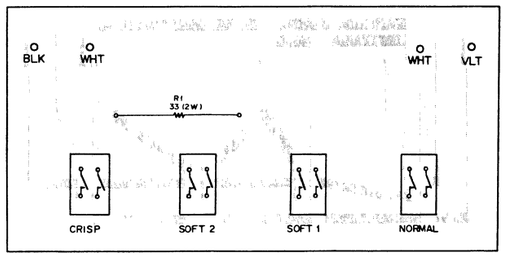
■ Circuit Diagram



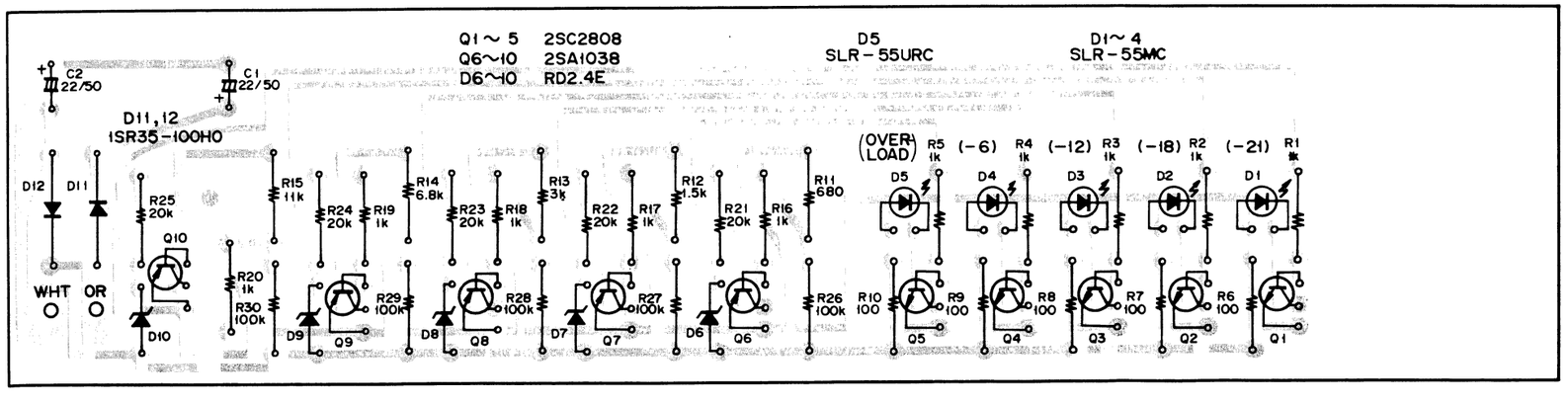
■ Wiring



■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



■ P.C. Board Pattern of Power Indicator Assembly (SWX-083)



■ Parts List

NETWORK ASSEMBLY (SWN-301)

Mark	Part No.	Symbol & Description	
	CES04 5R6K 100	C1	Capacitor
	CES04 1R2K 63	C2	Capacitor
	CES04 1R8K 63	C3	Capacitor
	RT5B 330K	R2	Resistor
	SKE-008		Terminal
	SKE-007		Terminal
		L1	Choke coil (1.5 mH)
		L2	Choke coil (0.39 mH)
		L3	Choke coil (0.22 mH)
		L4	Choke coil (4.5 mH)

ATTENUATOR ASSEMBLY (SWL-015)

Mark	Part No.	Symbol & Description	
	RTF2Q 330J 28	R1	Resistor
★★	SSG-002		Switch

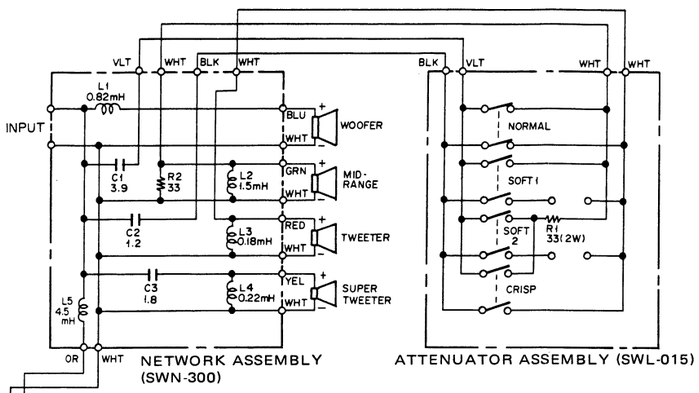
POWER INDICATOR ASSEMBLY (SWX-083)

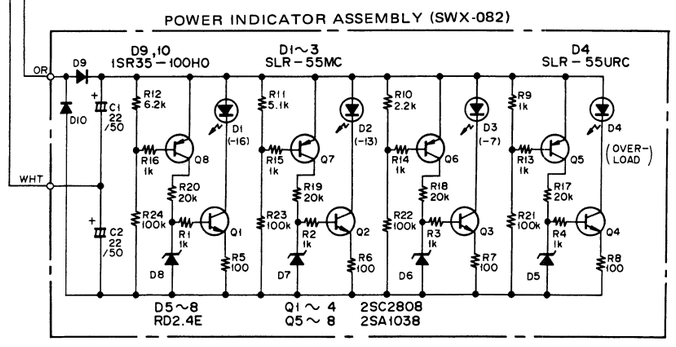
Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description	
	CEA 220M 63	C1, C2	Capacitor
	RD1/4PM□□□J	R1–R30	Resistor
★★	2SC2808	Q1–Q5	Transistor
★★	2SA1038	Q6–Q10	Transistor
★	SLR-55MC	D1–D4	Diode
★	SLR-55URC	D5	Diode
★	RD2.4E	D6–D10	Diode
★	1SR35-100H0	D11, D12	Diode

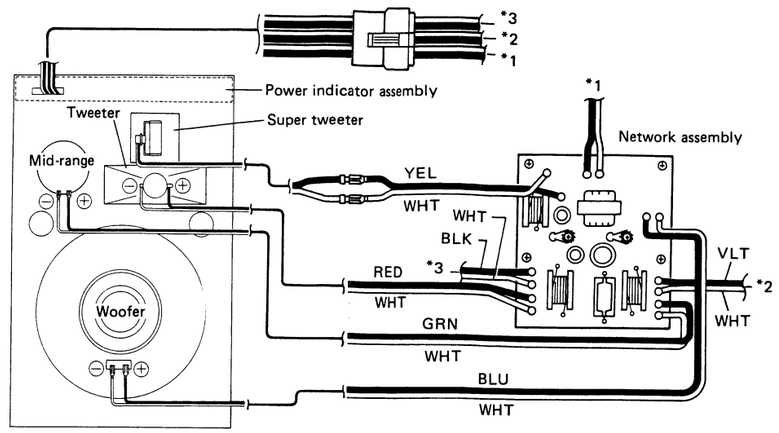
CS-603

■ Circuit Diagram

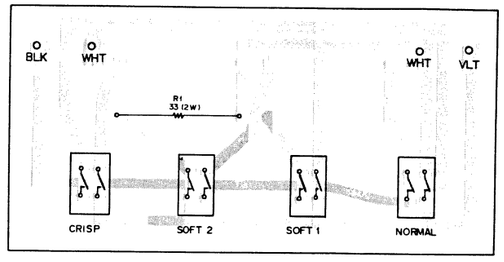




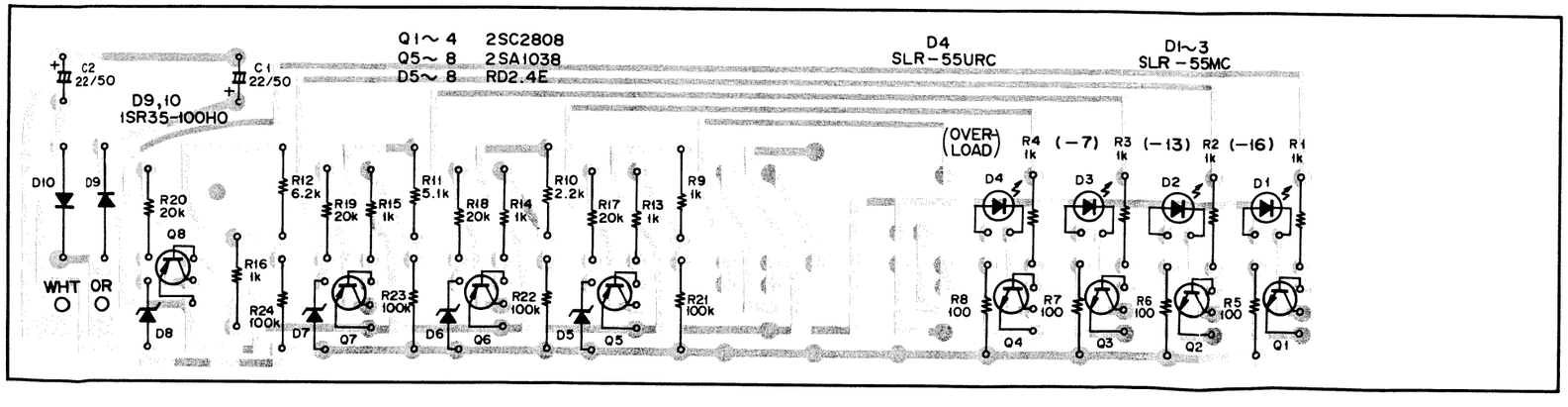
■ Wiring



■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



■ P.C. Board Pattern of Power Indicator Assembly (SWX-082)



■ Parts List

NETWORK ASSEMBLY (SWN-300)

Mark	Part No.	Symbol & Description	
	CES04 3R9K 100	C1	Capacitor
	CES04 1R2K 63	C2	Capacitor
	CES04 1R8K 63	C3	Capacitor
	RT5B 330K	R2	Resistor
	SKE-008		Terminal
	SKE-007		Terminal
		L1	Choke coil (0.82 mH)
		L2	Choke coil (1.5 mH)
		L3	Choke coil (0.18 mH)
		L4	Choke coil (0.22 mH)
		L5	Choke coil (4.5 mH)

ATTENUATOR ASSEMBLY (SWL-015)

Mark	Part No.	Symbol & Description	
	RTF2Q 330J 28	R1	Resistor
★★	SSG-002		Switch

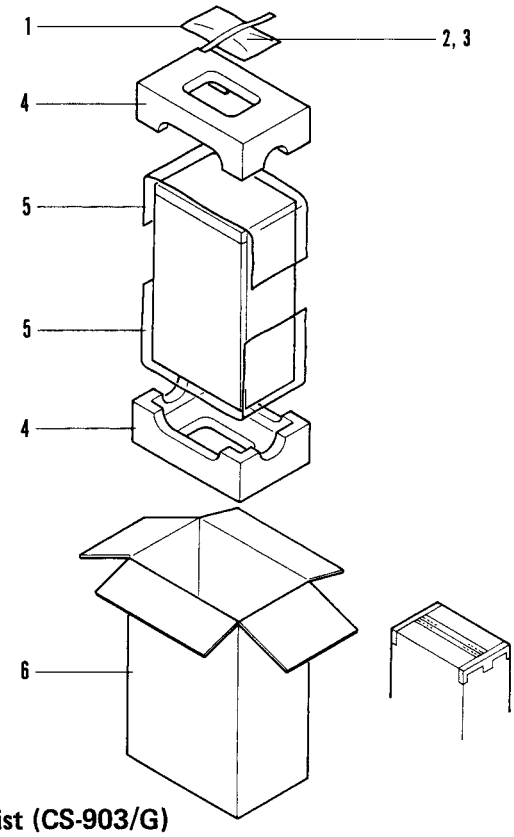
POWER INDICATOR ASSEMBLY (SWX-082)

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

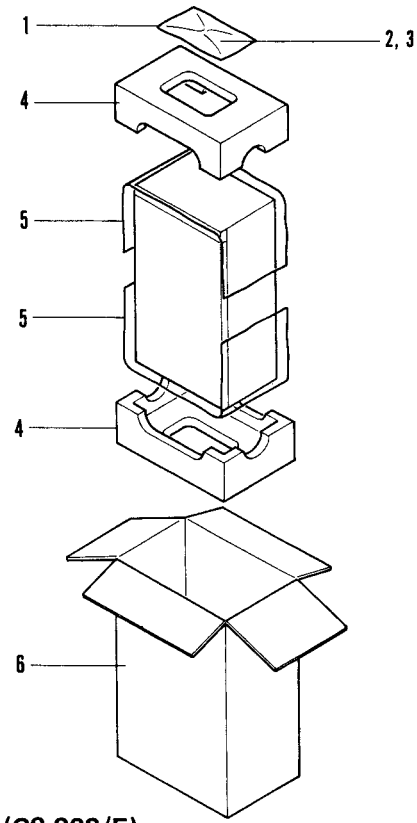
Mark	Part No.	Symbol & Description	
	CEA 220M 63	C1, C2	Capacitor
	RD1/4PM□□□J	R1–R24	Resistor
★★	2SC2808	Q1–Q4	Transistor
★★	2SA1038	Q5–Q8	Transistor
★	SLR-55MC	D1–D3	Diode
★	SLR-55URC	D4	Diode
★	RD2.4E	D5–D8	Diode
★	1SR35-100H0	D9, D10	Diode

PACKING VIEW AND PARTS LIST

Packing View of CS-903/G, CS-803/G and CS-703/G



Packing View of CS-903/E, CS-803/E and CS-703/E



Parts List (CS-903/G)

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRB-254	Operating guide
	4.	SHA-534	Protector
	5.	SHC-430	Cover
	6.	SHG-490	Packing case

Parts List (CS-903/E)

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRD-019	Operating guide
	4.	SHA-534	Protector
	5.	SHC-430	Cover
	6.	SHG-495	Packing case

Parts List (CS-803/G)

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRB-259	Operating guide
	4.	SHA-556	Protector
	5.	SHC-430	Cover
	6.	SHG-494	Packing case

Parts List (CS-803/E)

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRD-022	Operating guide
	4.	SHA-556	Protector
	5.	SHC-430	Cover
	6.	SHG-526	Packing case

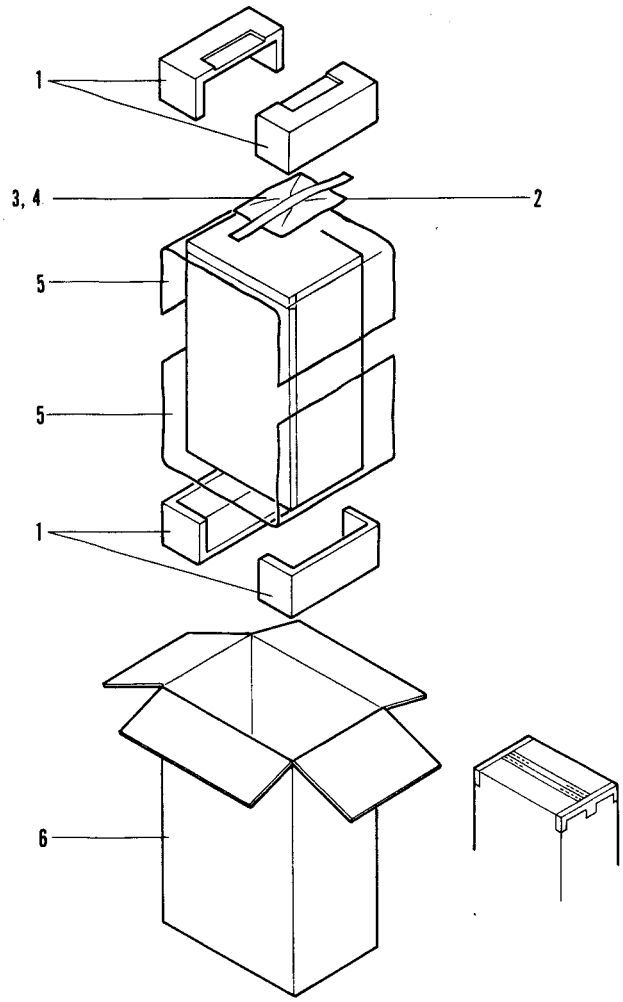
Parts List (CS-703/G)

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRB-256	Operating guide
	4.	SHA-556	Protector
	5.	SHC-430	Cover
	6.	SHG-493	Packing case

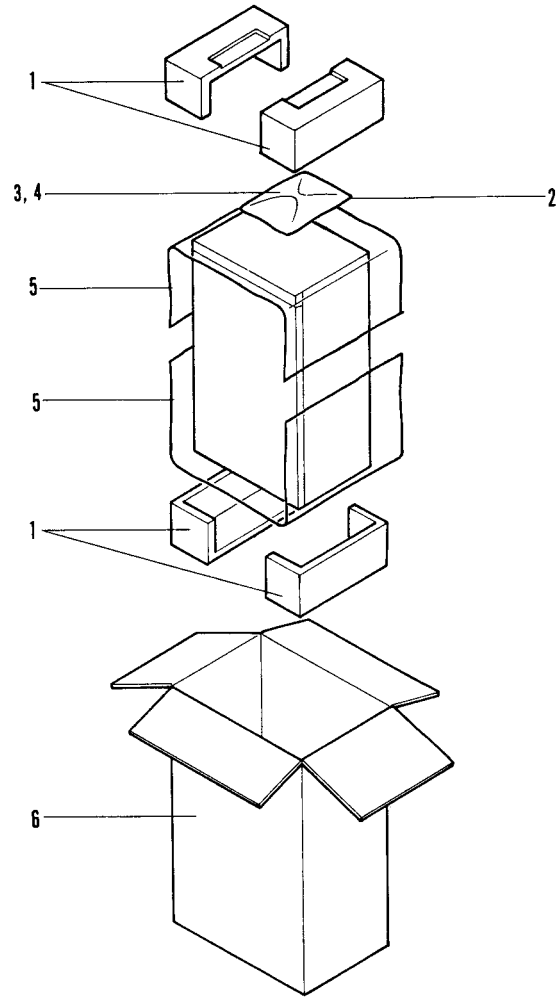
Parts List (CS-703/E)

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRD-020	Operating guide
	4.	SHA-534	Protector
	5.	SHC-430	Cover
	6.	SHG-496	Packing case

Packing View of CS-603/G



Packing View of CS-603/E



Parts List (CS-603/G)

Mark	No.	Part No.	Description
	1.	SHA-505	Protector
	2.	SHL-185	Vinyl bag
	3.	KDD-012	Service cord
	4.	SRB-255	Operating guide
	5.	SHC-426	Cover
	6.	SHG-491	Packing case

Parts List (CS-603/E)

Mark	No.	Part No.	Description
	1.	SHA-505	Protector
	2.	SHL-185	Vinyl bag
	3.	KDD-012	Service cord
	4.	SRD-021	Operating guide
	5.	SHC-426	Cover
	6.	SHG-492	Packing case